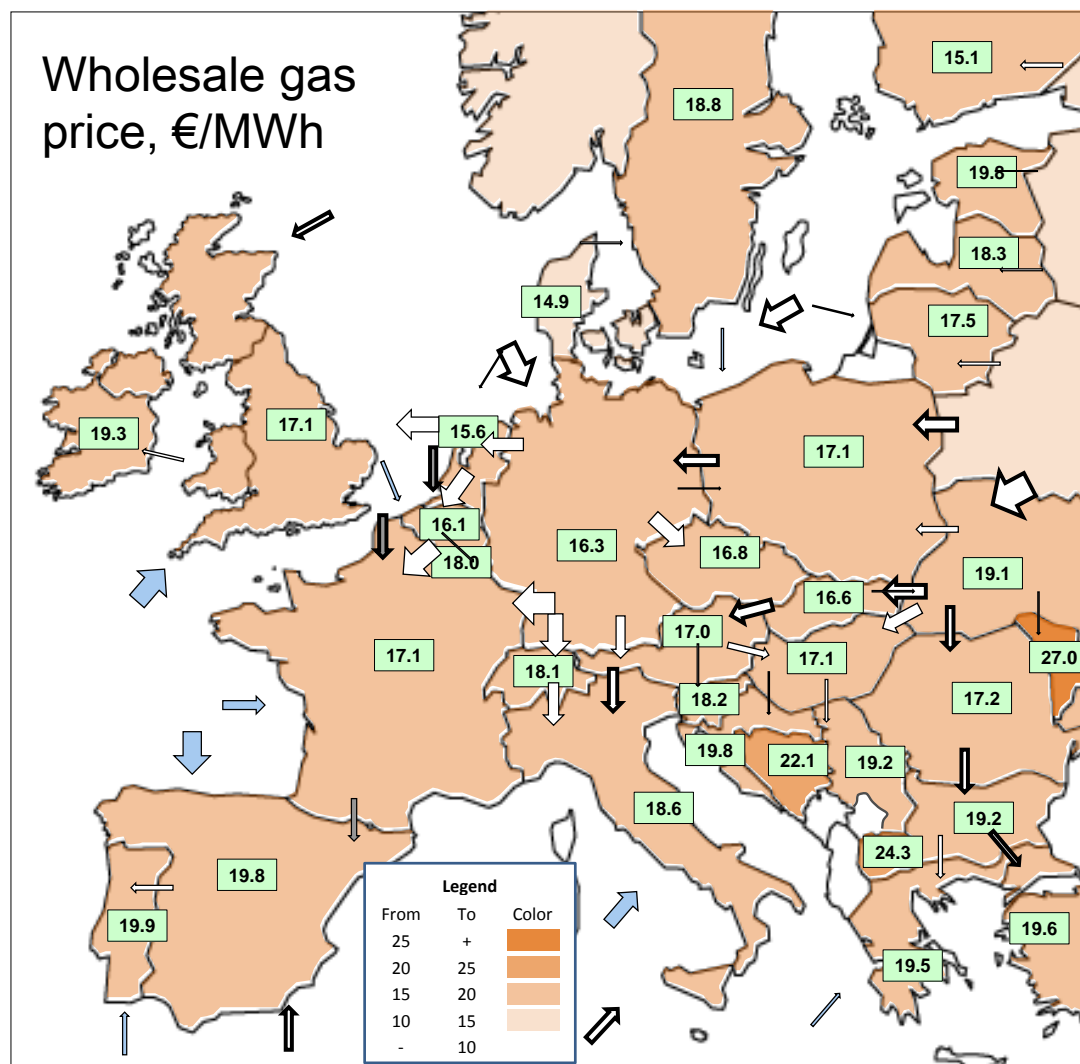# Usage of ENTSOG transparency platform at REKK

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European Gas Market Model – major characteristics

Wholesale gas price, €/MWh

- Competitive, dynamic, multi-market equilibrium model
- All market participants are price takers
- Whole Europe (35 countries) is modelled
- Model explicitly includes the modelled countries' supply-demand representation, as well as their gas storages and transportation links to each other and to the outside world.
- Trade is based on long term contracts and spot trade within the EU and with exogenous countries and global LNG market (NO, RU, LNG)
- A single simulation run encompasses 12 consecutive months
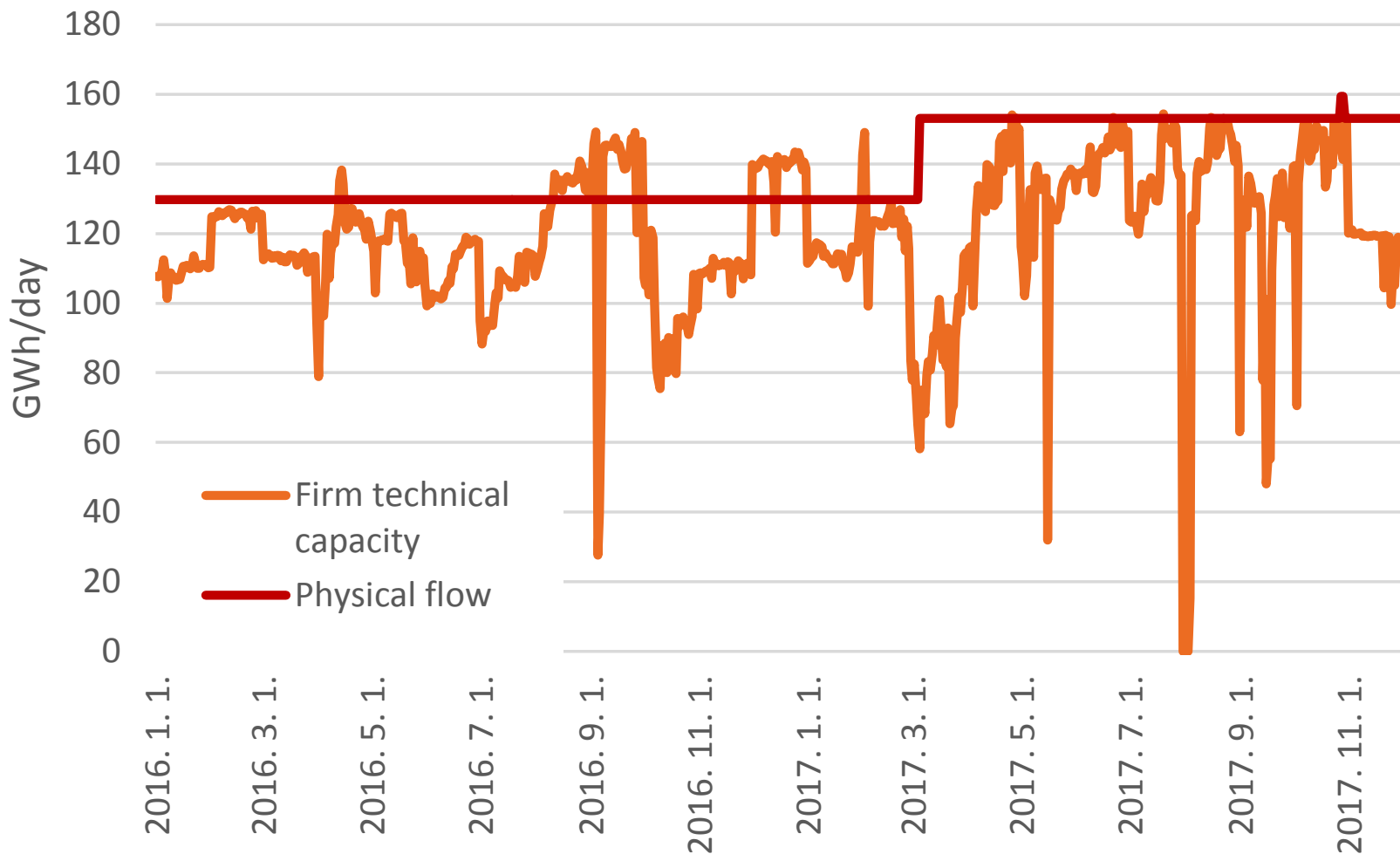- Market participants have perfect foresight over this period

Main inputs

Input data	unit	Source of data
Demand	TWh/year	Eurostat 2016 fact, PRIMES
Production	TWh/year, max GWh/day	Eurostat 2016 fact, PRIMES
Pipeline capacity	GWh/day	Entsog capacity map 2016
LNG capacity (regas)	GWh/day	GLE capacity map 2016
Storage capacity (injection, withdrawal, working gas)	GWh/day , TWh/year	GSE capacity map 2016
Tariffs (LNG, storage, pipeline entry and exit)	€/MWh	REKK calculation based on NRA published tariffs as of Dec 2016
LTC (ACQ, price, route)	TWh/year, flexibility, €/MWh	Cedigas, Eurostat comext and calculation of price based on statistical reports for 2016
Outside market prices (NO, RU, DZ, LNG)	€/MWh	REKK calculation based on statistical data

What do we use the model for?

- CBA of PECI projects for the Energy Community (2013, 2015, 2017)

- CESEC gas infrastructure corridor modelling (2015, European Commission)

- Effect of tariffs on natural gas pipeline utilisation and flows in the CESEC region (2016, European Commission)

- Follow-up study of the LNG & Storage strategy (2017, European Commission)

Experiences with the transparency platform

- The transparency platform is an indisposable tool for us

- Our experiences are overall positive, we find the interface user-friendly and easy to understand

- No steep learning curve

- Data consistency checks – when multiple TSOs are involved, data discrepancies may occur at the same point?

- Data export limitations – not possible to download the whole database? (timeout over 60 seconds)

Proposal for development on the platform: pre-defined regional supply

- Help for policy makers, experts and any users to get a quick look on the supply structure of a country or a region (EU28, NWE, SEE, CEE, user defined region)

- Production / storage / import / export / LNG and daily consumption

- Built-in aggregation tool (Quarterly, Yearly)

Thank you for your attention

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